UNITED STATES DEPARTMENT OF AGRICULTURE

Washington, D. C. 20250

February 9, 1965

SUMMARY OF ACTIONS ON PESTICIDE PROGRAMS

General Administrative Actions

1. A statement setting forth U. S. Department of Agriculture policy on pesticides was developed and published in Secretary's Memorandum No. 1565, a copy of which is attached.

2. All agencies of the Department were directed to review and revise publications on pests and their control to insure that all control practices are effective, safe, and in compliance with Department policy. This review is in progress and will be completed as soon as possible.

3. As directed by the Congress, a staff was established in the Office of the Secretary for interdepartmental coordination of pesticide programs.

4. All Departmental pesticide committees, work groups, and other coordinating mechanisms were realigned to improve scientific discipline and agency representation, and to strengthen the Department's interdepartmental pesticide coordination efforts.

5. Closer working relationships have been established with officials responsible for enforcing State laws regulating registration, labeling, and sale of pesticides.

6. Conferences with regional supervisory personnel of the Fish and Wildlife Service have been held.

7. Liaison has been established with the recently activated Experiment Station Committee on Pesticides.

Interdepartmental Coordination of Pesticide Programs

1. The Departments of Agriculture, Interior, and Health, Education and Welfare have agreed to cooperatively sponsor and support the organization of State and Regional Pest Control Councils which will review and evaluate State and Federal pest control research, regulatory, education, extension, and information programs to assure that effective pest control practices which protect the public health, wildlife, soil, water, forests, and other natural resources are provided.

2. The three Departments have agreed to sponsor an interdepartmental research work conference to review the progress, problems, and results of current pesticide research and to provide for close coordination of future plans and programs. Plans for this conference are being developed.

3. The three Departments have agreed to sponsor a national symposium on the status of the science of pest control with the objective of encouraging a multidiscipline, interdepartmental, and intergovernmental approach to the cooperative planning, conduct, and coordination of research, regulatory, extension, education, and information programs. Plans for this symposium are being developed.

4. The Department has worked with the other Federal agencies concerned to strengthen the interdepartmental Federal Committee on Pest Control. The responsibilities of this Committee were broadened to include the review, evaluation, and coordination of pest research, control, regulatory, monitoring, and information programs conducted by Federal agencies. Subcommittees have been organized to achieve the broadened objectives.

5. The Department has established a National Pesticides Information Center to serve interdepartmental pesticide information needs, and its work is being coordinated with related functions in other Federal departments and with various State and industrial institutions.

Registration

1. A revision of the regulations for the enforcement of the Federal Insecticide, Fungicide, and Rodenticide Act was published in the Federal Register on May 27, 1964.

2. A revision of the regulations prohibiting the use of unwarranted claims and requiring the registration number on the label was published in the Federal Register on August 29, 1964.

3. A proposed revision of Interpretation 22 of the regulations regarding the sale of thallium compounds was published in the Federal Register on September 12, 1964.

4. The regulations were revised to define vertebrate and invertebrate animals as including species of fish and wildlife for the purpose of requiring precautionary labeling.

5. The Department entered into an agreement with the Departments of Health, Education, and Welfare and Interior to coordinate activities of the three agencies relating to pesticides.

6. Registration has been canceled or acceptance withdrawn for certain uses of dieldrin, endrin, and heptachlor.

Information Activities

1. The Department is working closely with several national organizations.

2. More than 2½ million copies of publications on safe use of pesticides have been distributed.

3. The Department's radio and television efforts for pesticide safety have been endorsed by the Advertising Council and this support is reflected by the excellent use of the material furnished the news media.

4. The 16 mm color film "Safe Use of Pesticides" was an award-winning film in 1964.

5. Picture stories on safe use of pesticides were distributed to approximately 10,000 newspapers, house organs, picture syndicates, and magazines.

6. Department officials appeared before many important organizations to discuss USDA's pesticide responsibilities.

Control Programs

1. Mexican fruit fly on the Mexico-California border is being controlled by the release of sterile males.

2. Less persistent chemicals have been substituted in control programs for grasshoppers, gypsy moth, bollweevil, and cereal leaf beetle.

3. Satisfactory procedures for disposal of pesticides (dipping vats, etc.) have been developed.

Monitoring

1. Monitoring programs have been established in selected areas. Large-scale sampling operations of water, soils, crops, and non-target organisms are underway.

2. The impact of agricultural pesticides on the environment, including studies on water, soils, crops, fish, wildlife, beneficial insects, and other non-target organisms were conducted in Texas, Florida, Michigan, Wyoming, New Jersey, Pennsylvania, Illinois, North Carolina, and South Carolina.

Research

1. Sterility techniques resulted in the elimination of the melon fly and the oriental fruit fly in the Mariana group in the Pacific and control of the Mexican fruit fly along the Mexico-California border.

2. Significant advances have been made in the development of crop varieties resistant to diseases, insects, and nematodes.

3. A soil-inhabiting bacterium has been isolated which produces antibiotic activity against fungi.

4. Selective methods of application have resulted in the use of granular formulations of herbicides at lower amounts per acre and with greater safety from drift.

5. Research underway on the control of forest pests includes biological, nonchemical, and sterility methods, use of attractants and repellents, and genetic and varietal resistance to insects and diseases.

6. The use of inert dusts for the protection of stored grain from insects is being investigated in three geographical locations.

7. The investigation of hot water dips and gamma irradiation to control decay of fresh fruits and vegetables has been intensified.

8. New research facilities have been constructed in North Dakota, Oregon, and North Carolina.

9. Additional Federal Grant Hatch Funds are being administered by the Cooperative State Research Service.

10. Nine new regional projects concerned with pest control or residue problems have been activated.

11. Contracts have been negotiated with universities and non-university related organizations to investigate specific problems related to the control of pests of agricultural crops.

Attachment

UNITED STATES DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

December 23, 1964

SECRETARY'S MEMORANDUM NO. 1565

U. S. D. A. Policy on Pesticides

One of the most important responsibilities of the Department of Agriculture is to develop and facilitate the use of methods and materials for the control of pests. The Department's research, education and regulatory programs are expected to make continuing progress in the never-ending struggle to protect man, his food and fiber supplies, and his forests from the ravages of pests. Such protection is essential if the American people are to continue to enjoy their present high standard of living, and if this abundance of quality food and relative freedom from the hazards of pests is to be enjoyed by all mankind.

In protecting man, animals, plants, farm and forest products, communities and households against depredation of pests, the Department has vital concern for (1) the health and well-being of people who use pesticides and those who use products protected by their use; and (2) for the protection of fish, wildlife, soil, air and water from pesticide pollution.

In keeping with this concern, it is the policy of the Department of Agriculture to practice and to encourage the use of those means of effective pest control which provide the least potential hazard to man and animals. When residual pesticides must be used to control or eliminate pests, they shall be used in minimal effective amounts, applied precisely to the infested area and at minimal effective frequency. Biological, ecological or cultural methods or non-persistent and low toxicity pesticides will be used whenever such means are feasible and will safely and effectively control or eliminate target pests.

In carrying out these objectives, the Department will cooperate in the fullest with the other agencies and departments of Government, and will seek to develop broad areas of collaboration in establishing the criteria to guide the use and development of pest control materials.

Further, the USDA will urge that all users of pesticides exercise constant vigilance to assure the protection of human health by avoiding unnecessary exposure of crops, livestock, fish and wildlife.

The Department commends this policy to states and local authorities as a guide in their respective jurisdictions.

Orville L. Freeman

December 21, 1964

PROGRESS REPORT ON ACTIONS ON PESTICIDE REGISTRATION, RESEARCH AND CONTROL PROGRAMS

On August 12, 1963, a statement was prepared showing actions that had been taken or which were then underway on the recommendations of the President's Science Advisory Committee on the use of pesticides. The report has been brought up to date to show progress made since that time. We are summarizing below the status of the most significant developments.

General

1. Closer working relationships have been established with officials responsible for enforcing state laws regulating registration, labeling, and sale of pesticides. Liaison membership is maintained on the Executive Committee of the Association of American Pesticide Control Officials and the Department has advisory members on the Regulations Committee, Toxicology and Antidote Committee, Terms Committee, and Methods Clearing House Committee. The Department also sponsors an annual spring meeting with this Association to remain cognizant of the policies and views of the various state regulatory officials and to keep them properly informed on the latest actions under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to assure uniformity between Federal and State enforcement policies. A continuous exchange of information with state regulatory officials is maintained.

2. Conferences have been held with regional supervisory personnel of the Fish and Wildlife Service regarding the effect of pesticide registration requirements on their control programs.

3. Department scientists have acted as liaison members with the recently established Experiment Station Committee on Pesticides regarding the establishment of tolerances on minor crops. Requirements of the FIFRA have been made known to this group.

Registration

1. The Department strongly supported the enactment of S.1605, signed by the President on May 12, 1964, and designated as P.L. 88-305. This amendment to the FIFRA eliminated registration under protest and authorized the requirement of the registration number on the label.

2. A revision of the regulations for the enforcement of the FIFRA was published in the Federal Register (FR) on May 27, 1964. The revision provides for increased public protection under the Act by requirements certain precautionary statements to appear on the front panel of the label and by spelling out in some detail the legibility requrements for all labeling. The revision also provides for the requirement of increased toxicity data to support registration of new pesticides.

An additional revision of the regulations, published in the FR on August 29, 1964, prohibits the use of unwarranted safety claims on labeling and requires that the USDA registration number appear on the label of every economic poison registered under the Act as authorized by P.L. 88-305.

A proposed revision of Interpretation 22 of the regulations for the enforcement of the FIFRA which would restrict the sale of thallium compounds intended for household use was published in the FR on September 12, 1964. A final revision of the Interpretation will be published in the FR in the near future.

3. The regulations for the enforcement of the FIFRA were revised to define vertebrate and invertebrate animals as including species of fish and wildlife for the purpose of requiring precautionary labeling.

4. The Department entered into an agreement with the Departments of Health, Education, and Welfare and Interior in April for the purpose of coordinating activities of the three agencies pertaining to pesticides with special reference to the registration and the establishment of tolerances. This agreement was published in the FR on May 1, 1964. Each Department agreed to keep the other Departments fully informed of developments in knowledge on pesticides from research or other sources which may come into its possession. The Department of Agriculture has implemented this agreement by furnishing lists of applications for registration to the other Departments on a weekly basis. This is to give the interested agencies an opportunity to offer comments and recommendations on the proposed uses.

5. Registration has been cancelled or acceptance has been withdrawn for the following uses of persistent pesticides:

a. Endrin on cole crops was withdrawn because of the finding of residues made possible by the development of a more sensitive analytical procedure than was available at the time of registration. This analytical procedure has been adopted in enforcement programs.

b. Endrin on tobacco was cancelled because of data which showed directed use resulted in greater residues on tobacco than anticipated. In the absence of data to show conclusively that those levels of residues were safe, registration was cancelled.

c. Heptachlor on alfalfa and dieldrin on alfalfa and clover. Registration of heptachlor products bearing directions for use on alfalfa has been cancelled and steps have been taken to cancel registration of products containing dieldrin and bearing directions for use on alfalfa and clover. This action was based on chemical analysis which showed that such uses might result in residues on forage and hay at levels sufficient to cause detectable residues in milk. The detection of such residues was made possible by the development of more sensitive analytical procedures than were available at the time of registration. Manufacturers and formulators were instructed to relabel all shelf stocks bearing the unacceptable directions for use.

d. Acceptance of dieldrin for soil treatment of potatoes and sugar beets was withdrawn when data became available to show that the directed use was likely to result in illegal residues on the harvested crop.

6. At the joint request of the Food and Drug Administration and this Department, the National Academy of Science has established a committee which is studying the problems of "zero tolerance" and "no residue" registration.

Information Activities

The Department has produced information for all media to (a) encourage safe use of pesticides by the public, and (b) gain public understanding of the relationship between effective pest control and food and fiber production and protection. These include:

1. National Organization Cooperation - The Department is working closely with several national organizations. The Advertising Council carried information on safe pesticide use in its May-June Radio-TV Bulletin, calling attention of broadcasters across the nation to the availability of tapes, film, slides, and other material from USDA. Early in the year the National Safety Council launched a special campaign on pesticide safety to run through 1964. A program for 1965 will be ready for distribution in January. The Department also cooperated with the Girl Scouts of America by providing background materials.

6. Radio and Television - In July 1963, eight recorded radio features and six sound-on-film public service announcements urging safe pesticide use were sent to every U.S. broadcasting station. Since then, a new series of 14 radio and eight TV spot announcements have been given similar distribution. The excellent use of these reflects the effective support of the Advertising Council, which endorsed the Department's radio-TV efforts for pesticide safety.

7. Motion Picture - "Safe Use of Pesticides," award-winning 16mm color film, was produced in cooperation with the Food and Drug Administration. It had 1,203 showings during fiscal 1964 with the audience estimated at over 50,000.

8. Filmstrip - A 31 frame filmstrip, "Safe Use of Pesticides in the Home and Garden," was produced and is being widely used. More than 500 sets have been sold to interested groups.

9. Picture Stories - A picture story called "Behind the Pesticide Label" was published in late June and distributed to 3,500 newspapers, house organs, picture syndicates, and magazines. Another picture story "Use Pesticides Safely--Read the Label" was distributed earlier to similar outlets. In order to meet an unexpected heavy demand, a second printing was required. Total number distributed was 7,500.

10. Public Statements - Testimony presented to the Ribicoff Committee has been reproduced and widely distributed and Department officials have appeared before many important organizations to discuss USDA's pesticide responsibilities.

Control Programs

1. Mexican Fruit Fly - Mexican fruit fly on the Mexico-California border is being controlled by the release of sterile males in the vicinity of Tijuana-Baja California-Mexico, to the extent that applications of pesticides have not been required to prevent flies from migrating into California.

2. Use of Less Persistent Chemicals in Control Programs - Substitution of less persistent chemicals in control programs are:

a. Substitution of malathion for chlorinated hydrocarbons in the grasshopper control programs on Western rangeland.

b. Substitution of carbaryl for DDT in gypsy moth control work. The use of gyplure in especially designed traps is also being studied.

c. Substitution of malathion for carbaryl in the cereal leaf beetle program in order to avoid damage to bees.

d. Substitution of malathion for methyl parathion in the Texas High Plains bollweevil control program where an aggregate of 1,136,184 acres were treated with excellent results. Malathion was also used in the Big Bend area where an aggregate of 18,859 acres were treated.

e. Studies have been carried out to determine the effectiveness of malathion as a substitute for DDT in the spruce budworm program.

3. Studies are presently underway to determine a means of disposing of unused pesticides for sheep dipping vats. Biodegredation by micro-organisms in certain types of loam soils has been demonstrated and is being studied further.

Monitoring

Impact on environment of agricultural pesticide use - Following the reported fish kill in the lower Mississippi River in the spring of 1964, USDA established a program oriented study to determine the impact of normal agricultural pesticide use on the environment. This monitoring program, established in selected areas of Arkansas and Mississippi, involves 10 one-square mile study areas. Large-scale sampling operations on water, soil, crops and nontarget organisms began in May. The program was expanded in October 1964 when study areas were established in the Grand Forks areas of North Dakota and Minnesota, and again in November when another location was selected for study at Yuma, Arizona. The chemical analysis work to support this program will involve from 12,000 to 15,000 determinations. This is one of the largest undertakings of its kind on record. Data developed from the study will be useful to the Department in the cooperative Federal-State control programs and in carrying out Department responsibility in pesticide recommendations and regulations and other considerations in the pesticide use field. The data from the first season's work in the Delta is being brought together as rapidly as possible in order that it may be summarized and evaluated. The information will then be made available to all agencies having an interest in the field.

Monitoring the effects of cooperative treatment programs on the environment - The monitoring programs in 1964 included studies on water, soils, crops, fish, wildlife, beneficial insects and other nontarget organisms. A large part of these monitoring efforts were in cooperation with other Federal and State agencies. In some instances, special technical assistance was arranged on a contractual basis with colleges and universities. The cooperative control programs monitored in calendar year 1964 were bollweevil in Texas, burrowing nematode in Florida, cereal leaf beetle in Michigan, grasshopper in Wyoming, gypsy moth in New Jersey and Pennsylvania, Japanese beetle in Michigan and Illinois, and witchweed in North Carolina and South Carolina. Reports will be made available on these projects as soon as the studies are completed.

Research

1. Emphasis continues on the development of safer and more specific insect control measures. This includes research on sex attractants, baits, insect pathogens, parasites, predators, and male sterility.

(a) Male sterility techniques have eliminated the melon fly and oriental fruit flies on islands in the Mariana group in the Pacific and achieved control of Mexican fruit fly on the Mexico-California border.

(b) Tests with light traps to control tobacco hornworms in North Carolina, South Carolina, and Kentucky have shown promise.

2. Significant advances have been made in the development of crop varieties resistant to diseases, insects, and nematodes. The more notable examples are as follows:

(a) The development of two nectarless breeding stocks of cotton used by cotton breeders in reducing infestations of bollworms and leafworms, and of three cotton lines with resistance to bacterial blight.

(b) The development of a potato variety "Penobscot" which possesses genetic resistance to leafroll. Development of strains of sugarbeets resistant to cyst nematode, leaf spot and seeding diseases.

(c) Development of parental varieties of sugarcane with high resistance to sugarcane borers.

(d) Development of a new variety of tobacco resistant to Meloidogyne incognita, a root knot nematode.

(e) It has been determined that the cotton plant contains substances which act as (1) arrestants and feeding stimulants, (2) attractants, and (3) repellents. These findings are all being further evaluated.

(f) Contracts have been awarded to the Arizona Agricultural Experiment Station and the Idaho Agricultural Experiment Station to provide for research on resistance of sorghum to charcoal rot and the resistance of wheat, oats, and barley to the cereal leaf beetle, respectively.

3. Significant advances have been made in other methods of biological control of plant diseases.

(a) A soil inhabiting bacterium has been isolated which produces antibiotic activity against fungi.

2. Publications - More than a million copies each of a flyer, "Homemakers and Home Gardeners--Use Pesticides Safely," and a program aid, "Safe Use of Pesticides" have been distributed to the public through consumer organizations and State and County extension offices. Fifty thousand copies of another program aid, "Holding the Line--Forests and Pesticides" have been distributed.

"Controlling Household Pests," published in April, fills the need for a general home reference book. It discusses how to control 21 types of insects and other pests. The booklet is a major contribution to pesticide safety because it familiarizes the reader with many pesticides and the specific ways to apply them. Some 250,000 copies were printed.

"Farmers' Checklist for Pesticide Safety" was issued in August 1964 with 350,000 copies printed. "Apply Pesticides Safely by Aircraft" was printed and made available to all aerial pesticide applicators. A pamphlet entitled "Safe Disposal of Empty Pesticide Containers and Surplus Pesticides," directed at providing vital information on disposal to Government pest control officials, municipalities, pest control operators, and farmers was issued with 45,000 copies printed.

About 3,000 copies of a fact sheet, "Forest Pest Control Projects in Idaho and Montana," were issued to help answer questions and criticisms about spruce budworm projects in those states.

A special report, "Controlling Insects Without Conventional Insecticides," has been placed in the hands of the Nation's agricultural leaders.

3. News and Other Information - During the reporting period, the Department has issued through its facilities 55 national news stories. These include 20 stories dealing directly with safe use and 35 reporting on USDA's non-chemical pest control research efforts. The non-chemical research stories have also been featured.

4. Agricultural Research Magazine - In addition, many consumer items have appeared in the Department's Food and Home Notes, which go to women editors of newspapers, magazines, and broadcasting stations, and in Service, USDA's new monthly report to consumers.

5. Exhibits and Fairs - An exhibit on the safe use of pesticides was displayed at the National Capital Garden Show, and since has been on the State Fair circuit. In addition, an exhibit and three demonstrations stressing safe pesticide use were included in the Department's successful Food and Home Fair. Nearly 20,000 people from 49 states, plus many representatives of local and national media outlets, attended the Fair.

(b) Certain peanut diseases have been effectively controlled or suppressed by the management of organic trash in land preparation and cultivation or by heavy applications of landplaster.

(c) Streptomycin has been found to be a specific method for controlling downy mildew on hops.

4. A new laboratory has been completed at Fargo, North Dakota, to emphasize research on the metabolism of pesticides in insects, plants, and animals, and the male sterility approach to insect control.

5. Research is being intensified to determine the persistence of pesticides in soils. This is being carried out principally at Beltsville, Maryland, and Fargo, North Dakota.

6. The search for selective and nonpersistent herbicides is continuing. Selective methods of application have resulted in increased use of granular herbicides by placement of restricted dosages of herbicides. The use of surfactants and herbicide mixtures also reduces the amount of herbicides needed.

7. Pilot tests with dimethoate and with malathion have shown promise against spruce budworm.

8. Research is being conducted on control of forest pests by biological, nonchemical, and sterility methods, use of attractants, and repellents and genetic and varietal resistance to insects and disease.

9. The use of more specific and/or less persistent pesticides for control of forest insects and diseases and the fate of pesticide residues in forest soils and water is being studied.

10. New laboratories at Corvallis, Oregon, and Durham, North Carolina, have been completed to study diseases of insect pests and diseases of forests as well as basic studies in insect physiology and biological control for important forest pests.

11. Contracts have been granted to three state experiment stations to develop a process for mass producing spores of the milky disease bacteria for controlling Japanese beetles.

12. Chemicals are being evaluated at Savannah, Georgia, for selective action against stored grain pests.

13. Tests are being carried out at three geographic locations to determine the effectiveness of inert dusts in preventing insect infestations in stored grain.

14. Research has been intensified to determine the value of hot water dips and gamma irradiation to control decay of fresh fruit and vegetables.

15. Research projects have been contracted with various states or private research agencies:

Institution	Subject
Triangle Research Institute	Identify and synthesize the witchweed germination complex
Mississippi State University	Preemergence herbicides for selective control of weeds in cotton
University of Illinois	Effect of herbicides on several crops and effect of ecological changes in weed populations
Purdue University	Investigations on the microorganisms which attack Oulema species in Europe and the propagation and release of European insect parasites of Oulema species in Indiana
Texas A&M College	Evaluation of the polyhedrosis virus of bollworm larvae as a control agent for the bollworm and tobacco budworm on cotton.
Southern Research Institute	Investigation of bollweevil feeding stimulant from cotton squares
Mississippi State University	Effect of current cotton insect control practices on the parasites and predators of cotton bollworm and the effects that these beneficial insects have on population buildup of bollworm
Louisiana State University	Evaluation of selected sweetpotato varieties for resistance to the banded cucumber beetle in Louisiana
North Carolina State	Mass rearing of tobacco hornworms for use in sterile male and sex attractant studies

Institution	Subject
University of Kentucky	Data on adult hornworm populations and degree of infestations on tobacco in relation to the community wide grower use of blacklight traps in an area of normally low tobacco hornworm population
Clemson College	Data of adult hornworm populations and degree of infestations on tobacco in relation to the community wide grower use of blacklight traps in an area of normally high tobacco hornworm population
Virginia Polytechnic Institute	Response of tobacco hornworm and budworm moths to light, sound, and other sources or radiant energy
Kansas State University	Isolation of alfalfa clones and synthetic varieties with combined resistance to selected injurious insects

State agricultural experiment stations - Emphasis has continued on the development of biological controls of all kinds, attractants, development of integrated control and identification of the stages in the life cycle where new types of control are applicable. The research is aimed at improving the effectiveness and safety of methods of controlling diseases and pests. The 53 State Agricultural Experiment Stations spent about $7,000,000 of Federal Grant Hatch Funds and about $17,000,000 of State funds for research, information, and control of insects, weeds, and plant diseases, during the past fiscal year. An additional $3,000,000 of Federal Grant Hatch Funds is being spent during the current fiscal year.

(a) To make more rapid progress through regional cooperation in the research on means of reducing hazards of pesticide use and the development of nonchemical controls, the State stations have organized the following regional research projects:

NC-77, Factors Affecting the Role of Microorganisms in the Biological Control of Insect Pests. (North Central Region)

NCM-37, Trace Levels of Pesticide Residues in Agricultural Commodities in Marketing. (North Central Region)

NE-23, Factors Determining Winter Hardiness in Oats and the Relation of Barley Yellow Dwarf Virus to Its Host and Aphid Vectors. (Northeastern Region)

NE-53, Transformation of Insecticides by Plants. (Northeastern Region)

S-58, Centralized Pesticide Residue Investigations of the Southern Agricultural Experiment Stations. (Southern Region)

S-62, The Disposition of Pesticides in the Soil. (Southern Region)

SM-32, Reduction or Elimination of Commercial Channels of Adverse Effects of Pesticide Residues on Food and Feed Products. (Southern Region)

W-82, Soils, Pesticides and Quality of Water. (Western Region)

W-84, Evaluation and Augmentation of Biological Control Agents to Replace or Supplement the Use of Pesticides. (Western Region)

(b) In addition to these regional projects, the interregional project IR-4, Evaluation of Current Data and Needed Research to Determine Tolerance Limits of Chemicals for Minor Uses on Agricultural Products, has been activated.

(c) The Department has representatives on these regional and interregional projects.

(d) $3,242,000 was made available in fiscal 1965 for the construction of facilities at the State stations to be used exclusively for research on pesticides and agricultural pests.

(e) The State experiment stations in cooperation with the Extension Service have continued to prepare TV and radio programs dealing with the subject of pesticide use and safety which have been presented in the specific local areas. A large number of articles, leaflets, and posters dealing with user education of pesticides has received wide distribution in the states. In Florida an exceptionally fine educational program on the safe use of pesticides has been developed by the Extension Service in cooperation with the State station and other organizations within the state.